



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,418	07/03/2003	Sabina J. Houle	42P9485D	5131

7590 05/13/2005

Michael A. Bernadicou
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025

EXAMINER

THOMPSON, GREGORY D

ART UNIT PAPER NUMBER

2835

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,418

Applicant(s)

HOULE, SABINA J.

Examiner

Gregory D. Thompson

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-11, 18, 19, 21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-11, 18, 19, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. Applicant's election without traverse of figure 4a with claims 8-11, 18-19 and 21-22 readable thereon in the reply filed on 2/10/05 is acknowledged.
2. Claims 9-10 are objected to because of the following informalities: language of "said body" not consistent language. Appropriate correction is required.
3. Claim 18 is objected to because of the following informalities: line 5 should stated that the cover is secured to the top surface of the substrate to create the space for clear consistent language to provide a final article claim. Lines 3 and 7 language of "attached" and "secured" not consistent language when referring to the cover. Maybe, the language of "said substrate and" should be delete since lines 2-4 recite "attached.....of said substrate". Appropriate correction is required.
4. Claims 21-22 are objected to because of the following informalities: in claims 21-22 the attachment structures 402a and wall structure 402a should be secured to the top surface of substrate 307a by the sealant material 403a not "bonded or couple" to provide consistent language since the material 403a provides the bonding and coupling of element 402a to substrate 307a. Appropriate correction is required.
5. Claims 8, 18, 19, 21-22 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Saito et al.

Saito et al discloses an apparatus, package with a substrate or board 2 with an IC or device attached to the top surface of the substrate 2 and a heat conductive cover or heat spreader 11 with a surrounding wall structure (mechanical attachment structures) about a periphery thereof coupled to the substrate 2 by a flexible sealant material 6 with the IC or device secured to the cover 11.

Art Unit: 2835

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 18, 19, 21-22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bark III et al.

Bark discloses an apparatus, package with a substrate or board 16 with an IC or device attached to the top surface of the board 16 and a heat conductive cover or heat spreader 14 with a surrounding wall, ring structure (mechanical attachment structures) 36 about a periphery thereof coupled to board 16 by a flexible sealant material 6 with the IC or device secured to the cover.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-11, 18-19, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toy et al. in view of Barker III et al.

Toy discloses a nickel plated heat spreader (broad term) or cover 18 composed of heat conductive material and a periphery wall structure (mechanical attachment structures) coupled to a top surface of substrate 11 by seal elements 23, 24 with a device 12 secured to the substrate 11 and cover. Toy does not teach a flexible polymeric

Art Unit: 2835

sealant. Barker discloses a compliant/flexible material as a sealant. Therefore, it is considered obvious to one of ordinary skill in the art at the time of the invention to replace sealant elements 23, 24 with the flexible sealant 26 taught by Barker to provide less parts, cost and to provide a flexible/compliant sealant that can withstand mechanical shock thus keeping the IC 12 protected from dirt, moisture to prolong device life. Toy also teaches a silicone polymeric adhesive 21 used to seal element 22 to cover or spreader 18. Therefore, it is considered obvious to one of ordinary skill in the art at the time of the invention that sealant 26 could be composed of silicone polymeric adhesive material thus providing excellent sealant and mechanical shock properties to prolong device life. Page 12, lines 3-5 of instant case refer to silicone sealant.

Regarding claim 11 silicone pastes or epoxy 16 is applied to coated (broad term) to part of cover 18.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Thompson whose telephone number is (571)272-2045. The examiner can normally be reached on Mon- Thur from 6:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on (571) 272-2800,ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 2835

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

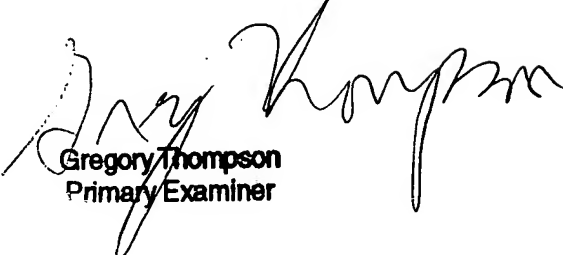
For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Thompson/ds

04/28/05



Gregory Thompson
Primary Examiner